Appl. No. 10/812,889

Amdt. Dated: 04/18/07

Reply to Office action of 01/26/07

Amendments to the Claims:

This Listing of Claims will replace all prior versions, and listings, of claims in the

Application:

**Listing of Claims:** 

1. (currently amended) A dielectric composition adapted for use in printed circuit boards

and chip carriers, said dielectric composition comprising:

a cured epoxy resin material; and

a particulate filler within said cured resin material, said dielectric composition forming a

substantially solid layer for use within a printed circuit board or chip carrier as a

dielectric layer such that said dielectric layer does not include continuous fibers, or semi-

continuous fibers or the like as part thereof, said dielectric composition having a

<u>dielectric loss factor of from about 0.005 to about 0.028 and further including a coupling</u>

agent, said particulate filler including particles ranging from about thirty percent by

volume to about forty-five percent by volume of said dielectric composition, said

particles having a particle size from about five to about thirty-two microns.

2. (currently amended) The dielectric composition of claim 1 wherein said eured resin-

material is a polymer resin substantially solid layer includes a pattern of holes therein,

said pattern having a density of from about 5,000 to about 10,000 holes per square inch.

3. (currently amended) The dielectric composition of claim [[2]] 1 wherein said polymer

<u>cured epoxy</u> resin exhibits a high glass transition temperature (Tg).

(currently amended) The dielectric composition of claim 3 wherein said polymer cured · 4.

epoxy resin is substantially dicyandiamide free.

EI-2-04-005

2

Appl. No. 10/812,889 Amdt. Dated: 04/18/07

Reply to Office action of 01/26/07

5. (currently amended) The dielectric composition of claim [[2]] 1 wherein said cured epoxy resin is a high molecular weight, reactive thermosetting resin.

- 6. (cancelled)
- 7. (original) The dielectric composition of claim 1 wherein said particulate filler is selected from the group consisting of alumina, aluminum oxide, aluminum nitride, silicon nitride, silicon carbide, beryllium oxide, boron nitride, diamond powder, titanium oxide, silica, ceramic and combinations thereof.
- 8. (original) The dielectric composition of claim 7 wherein said silica is selected from the group consisting of spherical amorphous silica, hollow silica microspheres and combinations thereof.
- 9-11. (cancelled)
- 12. (previously presented) The dielectric composition of claim 1 wherein said coupling agent is silane.
- 13. (currently amended) The invention dielectric composition of claim 1 wherein said dielectric layer has a dielectric constant within the range of from about 2.8 to about 4.0.
- 14. (currently amended) The invention <u>dielectric composition</u> of claim 1 wherein said dielectric layer has a Tg within the range of from about 165 deg. C. to about 200 deg. C.
- 15. (cancelled)

Appl. No. 10/812,889 Amdt. Dated: 04/18/07

Reply to Office action of 01/26/07

- 16. (currently amended) The invention- dielectric composition of claim 1 wherein said dielectric layer has a decomposition temperature within the range of from about 300 deg. C to about 330 deg. C.
- 17. (original) The dielectric composition of claim 1 further including a flexibilizer.
- 18. (cancelled)
- 19. (original) The dielectric composition of claim 1 further including a flow-control additive.
- 20. (cancelled)

EI-2-04-005